

HPE OfficeConnect 1620 Switch Series Getting Started Guide

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Preparing for installation

The HPE OfficeConnect 1620 Switch Series includes the models listed in Table 1.

Table 1 HPE OfficeConnect 1620 Switch Series models

Product code	HPE description	Alias	RMN
JG912A	HPE OfficeConnect 1620 8G Switch	HPE 1620 8G Switch	HNGZA-HA0017
JG913A	HPE OfficeConnect 1620 24G Switch	HPE 1620 24G Switch	HNGZA-HA0018
JG914A	HPE OfficeConnect 1620 48G Switch	HPE 1620 48G Switch	HNGZA-HA0019

(!) IMPORTANT:

For regulatory identification purposes, the switches are assigned Regulatory Model Numbers (RMNs). The RMNs should not be confused with the marketing name HPE 1620, or the product codes.

Safety recommendations

To avoid any equipment damage or bodily injury, read the following safety recommendations before installation. The recommendations do not cover every possible hazardous condition.

- To avoid damage to the electrolytic capacitor in the switch, do not store the switch without power for more than one year.
- Before cleaning the switch, remove all power cords from the switch. Do not clean the switch with a wet cloth or liquid.
- Do not place the switch near water or in a damp environment. Prevent water or moisture from entering the switch chassis.
- Do not place the switch on an unstable case or desk. The switch might be severely damaged in case of a fall.
- Ensure good ventilation of the equipment room and keep the air inlet and outlet vents of the switch free of obstruction.
- Make sure the operating voltage is in the required range.
- To avoid electrical shocks, do not open the chassis while the switch is operating or when the switch is just powered off.
- The accessories shipped with the switch, including but not limited to power cables, are intended only for the switch. Please do not use them for other products.

Examining the installation site

The switches must be used indoors. You can mount your switch in a rack or on a workbench, but make sure:

- A minimum clearance of 5 cm (1.97 in) is reserved at the air inlet and exhaust vents for ventilation.
- The rack or workbench has a good ventilation system.
- The rack or workbench is sturdy enough to support the switch and its accessories.
- The rack or workbench is reliably grounded.

To ensure correct operation and long service life of your switch, install it in an environment that meets the requirements described in the following subsections.

Temperature/humidity

Maintain temperature and humidity in the equipment room as described in "Environmental specifications."

- Lasting high relative humidity can cause poor insulation, electricity creepage, mechanical property change of materials, and metal corrosion.
- Lasting low relative humidity can cause washer contraction and ESD and cause problems including loose mounting screws and circuit failure.
- High temperature can accelerate the aging of insulation materials and significantly lower the reliability and lifespan of the switch.

Cleanliness

Dust buildup on the chassis might result in electrostatic adsorption, which causes poor contact of metal components and contact points, especially when indoor relative humidity is low. In the worst case, electrostatic adsorption can cause communication failure.

Table 2 Dust concentration limit in the equipment room

Substance	Concentration limit (particles/m³)
Dust	≤ 3 x 10 ⁴ (no visible dust on the tabletop over three days)
NOTE:	
Dust diameter ≥ 5 μm	

The equipment room must also meet strict limits on salts, acids, and sulfides to eliminate corrosion and premature aging of components, as shown in Table 3.

Table 3 Harmful gas limits in the equipment room

Gas	Maximum concentration (mg/m³)
SO ₂	0.2
H ₂ S	0.006
NH ₃	0.05
Cl ₂	0.01

EMI

All electromagnetic interference (EMI) sources, from outside or inside of the switch and application system, adversely affect the switch in the following ways:

- A conduction pattern of capacitance coupling.
- Inductance coupling.
- Electromagnetic wave radiation.
- Common impedance (including the grounding system) coupling.

To prevent EMI, use the following guidelines:

- If AC power is used, use a single-phase three-wire power receptacle with protection earth (PE) to filter interference from the power grid.
- Keep the switch far away from radio transmitting stations, radar stations, and high-frequency devices.
- Use electromagnetic shielding, for example, shielded interface cables, when necessary.

Installing the switch

M WARNING!

Before installing or moving the switch, remove the power cord.

You can install an HPE 1620 switch in a 19-inch rack, on a workbench, or on a wall.

Mounting the switch in a 19-inch rack by using mounting brackets

The HPE 1620 24G and HPE 1620 48G switches have the same width. The installation procedure is the same for the switches. This section uses the HPE 1620 24G switch as an example.

To mount the switch in a 19-inch rack:

- Wear an ESD wrist strap and make sure it makes good skin contact and is reliably grounded.
- 2. Verify that the rack is securely grounded and is stable.
- 3. Attach the mounting brackets to both sides of the chassis with screws.

NOTE:

Mounting brackets are used only for securing the switch to the rack. A rack shelf on the rack is used to bear the switch weight.

Figure 1 Attaching the mounting brackets to the HPE 1620 8G switch

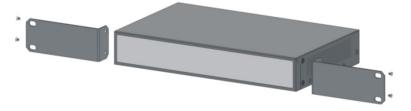
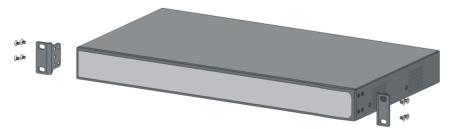


Figure 2 Attaching the mounting brackets to the HPE 1620 24G switch



- Place the switch on a rack shelf in the rack. Push the switch in until the oval holes in the brackets align with the mounting holes in the rack posts.
- Attach the mounting brackets to the rack posts with screws. 5.

Figure 3 Mounting the HPE 1620 8G switch in the rack

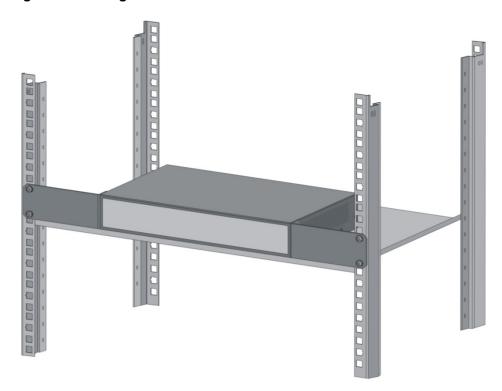
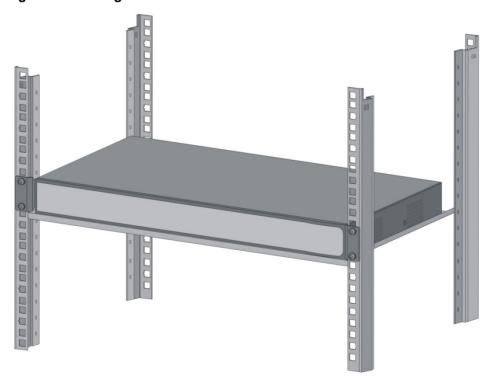


Figure 4 Mounting the HPE 1620 24G switch in the rack



Mounting the switch on a workbench

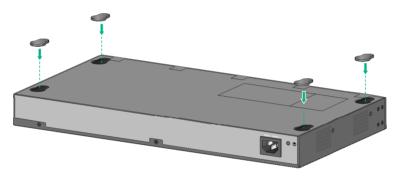
(!) IMPORTANT:

- Reserve a clearance of 10 cm (3.9 in) around the chassis for heat dissipation.
- · Do not place heavy objects on the switch.

To mount the switch on a workbench:

- 1. Verify that the workbench is sturdy and reliably grounded.
- 2. Place the switch bottom up, and clean the round holes in the chassis bottom with a dry cloth.
- 3. Attach the rubber feet to the four round holes in the chassis bottom.
- **4.** Place the switch upside up on the workbench.

Figure 5 Attaching rubber feet (HPE 1620 48G Switch)

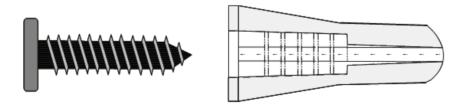


Mounting the switch on a wall

Only the HPE 1620 8G switch can be installed on a wall. The type of screws used to mount the switch on the wall depends on the wall type. This section uses a concrete wall as an example.

Wall-mounting anchor kits are user supplied. The screws must be a minimum of 3 mm (0.12 in) in diameter, and the screw head must be a minimum of 6 mm (0.24 in) in diameter.

Figure 6 Wall-mounting anchor kit

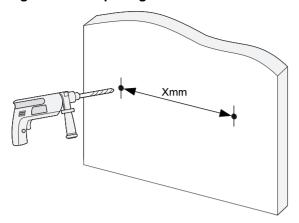


To install the switch on a concrete wall:

1. Drill two holes at the same height. Make sure the spacing in between is 160 mm (6.30 in), as shown in Figure 7.

The hole depth and diameter depend on the wall anchors and screws you use. Make sure you can push the anchors to their full depth in the holes.

Figure 7 Hole spacing



- 2. Insert one wall anchor into each hole until the anchors are flush with the wall surface.
- **3.** Drive one screw into each wall anchor, and tighten the screws just enough to keep it secure in the wall anchor.

Leave a minimum clearance of 1.5 mm (0.06 in) between the base of the screw head and the wall anchor so the switch can hang on the screws securely.

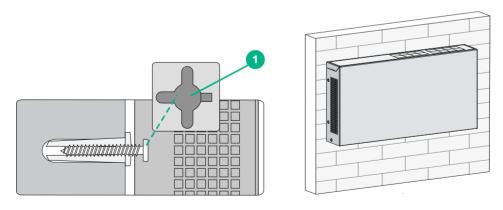
Figure 8 Driving a screw into a wall anchor



4. Align the two mounting holes in the switch chassis bottom with the two screws on the wall and hang the switch.

Make sure the Ethernet ports are facing downwards and the chassis side panels are perpendicular to the ground.

Figure 9 Wall mounting



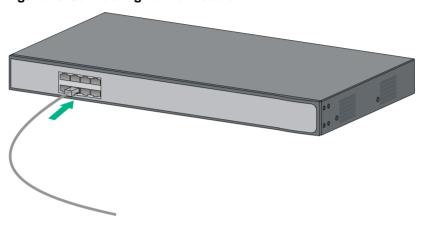
(1) Mounting hole in the switch chassis bottom

Connecting cables

Connecting network cable

Use crossover cable or straight through cable to connect a PC or other network devices to the Ethernet port of the switch.

Figure 10 Connecting network cable

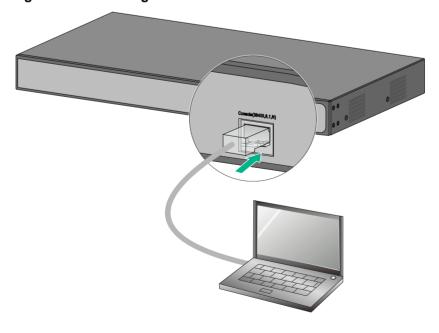


Connecting the console cable

To connect a terminal (for example, a PC) to the switch:

- 1. Wear an ESD wrist strap and make sure it makes good skin contact and is reliably grounded.
- 2. Connect the DB-9 female connector of the console cable to the serial port of the PC.
- 3. Connect the RJ-45 connector to the console port of the switch.

Figure 11 Connecting the console cable



NOTE:

To disconnect the console cable, remove the RJ-45 connector of the cable and then the DB-9 female connector.

Connecting the AC power cord

- 1. Wear an ESD wrist strap and make sure it makes good skin contact and is reliably grounded.
- **2.** Connect one end of the grounding cable to the grounding screw on the rear panel, and connect the other end to the ground.
- 3. Make sure the correct power source is used.
- 4. Connect one end of the AC power cord to the AC power receptacle on the switch.
- 5. Connect the other end of the AC power cord to the AC power outlet.
- **6.** Examine the power LED. If it is ON, the power connection is correct.

Figure 12 Connecting the AC power cord to the AC power receptacle



Verifying the installation

After you complete the installation, verify the following items:

- There is enough space for heat dissipation around the switch.
- The rack or workbench is stable.
- The grounding cable is securely connected.
- The correct power source is used.
- The power cords are correctly connected.
- All the interface cables are cabled indoors. If any cable is routed outdoors, verify that the socket strip with lightning protection and lightning arresters for network ports have been correctly connected.

Accessing the switch for the first time

Setting up the configuration environment

The first time you access the switch you must use a console cable to connect a console terminal, for example, a PC, to the console port on the switch.

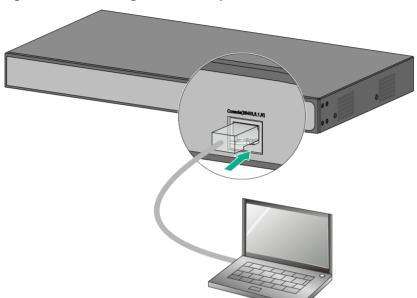


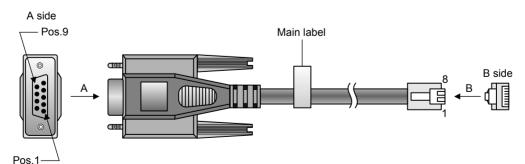
Figure 13 Connecting the console port to a terminal

Connecting the console cable

Console cable

A console cable is an 8-core shielded cable. It has a crimped RJ-45 connector at one end for connecting to the console port of the switch, and a DB-9 female connector at the other end for connecting to the serial port on the console terminal.

Figure 14 Console cable



Connection procedure

↑ CAUTION:

The serial ports on PCs do not support hot swapping. To connect a PC to an operating switch, first connect the PC end. To disconnect a PC from an operating switch, first disconnect the switch end.

To connect a terminal (for example, a PC) to the switch:

- 1. Wear an ESD wrist strap and make sure it makes good skin contact and is reliably grounded.
- 2. Connect the DB-9 female connector of the console cable to the serial port of the PC.
- Connect the RJ-45 connector to the console port of the switch.Identify the mark on the console port and make sure you are connecting to the correct port.

Setting terminal parameters

Start a terminal application such as HyperTerminal on the computer. Configure the utility with the following parameters:

- Bits per second—38,400
- Data bits—8
- Parity—None
- Stop bits—1
- Flow control—None
- Emulation—VT100

Powering on the switch

Verification before power-on

Before powering on the switch, verify the following items:

- The power cord is correctly connected.
- The input power voltage meets the requirement of the switch.
- The console cable is correctly connected.
- The terminal (for example, a PC) has started, and its configuration parameters have been correctly set.

Powering on the switch

1. Turn on the power source of the switch.

The output displayed on the terminal varies by switch software versions. The following is a sample output of an HPE 1620 24G switch on the terminal:

Copyright (c) 2010-	-2016 Hewlett Packard Enterprise Development LP
Compiled Date	: Jan 4 2016 17:00:53
CPU Type	: MIPS4kec
	: 16KB
CPU Clock Speed	
_	DDR3 SDRAM
Memory Size	
-	: 300MHz
	: 3MB
	: 32MB
114511 5120	32.2
BootWare Validating	
	ter extended boot menu
	e main application fileflash:/JG913A-CMW520-R1110.bin!
	s main application life limbs (00) life of main applications
	on file is self-decompressing
	21 1120 18 8011 4000
	Done!
System application	is starting
User interface aux() is available.

Press ENTER to get started.

2. Press Enter.

The system displays the following prompt:

<HPE>

This prompt indicates that the switch is ready to configure.

Document conventions and icons

Conventions

This section describes the conventions used in the documentation.

Port numbering in examples

The port numbers in this document are for illustration only and might be unavailable on your device.

Command conventions

Convention	Description
Boldface	Bold text represents commands and keywords that you enter literally as shown.
Italic	Italic text represents arguments that you replace with actual values.
[]	Square brackets enclose syntax choices (keywords or arguments) that are optional.
{ x y }	Braces enclose a set of required syntax choices separated by vertical bars, from which you select one.
[x y]	Square brackets enclose a set of optional syntax choices separated by vertical bars, from which you select one or none.
{ x y } *	Asterisk marked braces enclose a set of required syntax choices separated by vertical bars, from which you select at least one.
[x y]*	Asterisk marked square brackets enclose optional syntax choices separated by vertical bars, from which you select one choice, multiple choices, or none.
&<1-n>	The argument or keyword and argument combination before the ampersand (&) sign can be entered 1 to n times.
#	A line that starts with a pound (#) sign is comments.

GUI conventions

Convention	Description
Boldface	Window names, button names, field names, and menu items are in Boldface. For example, the New User window appears; click OK .
>	Multi-level menus are separated by angle brackets. For example, File > Create > Folder .

Symbols

Convention	Description
⚠ WARNING!	An alert that calls attention to important information that if not understood or followed can result in personal injury.
△ CAUTION:	An alert that calls attention to important information that if not understood or followed can result in data loss, data corruption, or damage to hardware or software.
! IMPORTANT:	An alert that calls attention to essential information.
NOTE:	An alert that contains additional or supplementary information.
Q TIP:	An alert that provides helpful information.

Network topology icons

Convention	Description
	Represents a generic network device, such as a router, switch, or firewall.
ROUTER	Represents a routing-capable device, such as a router or Layer 3 switch.
ĕ\$→	Represents a generic switch, such as a Layer 2 or Layer 3 switch, or a router that supports Layer 2 forwarding and other Layer 2 features.
	Represents an access controller, a unified wired-WLAN module, or the access controller engine on a unified wired-WLAN switch.
((4,1))	Represents an access point.
T0))	Represents a wireless terminator unit.
(10)	Represents a wireless terminator.
	Represents a mesh access point.
1))))	Represents omnidirectional signals.
	Represents directional signals.
	Represents a security product, such as a firewall, UTM, multiservice security gateway, or load balancing device.
	Represents a security card, such as a firewall, load balancing, NetStream, SSL VPN, IPS, or ACG card.

Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website: www.hpe.com/assistance
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:

www.hpe.com/support/hpesc

Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates, go to either of the following:
 - Hewlett Packard Enterprise Support Center Get connected with updates page: www.hpe.com/support/e-updates
 - Software Depot website: www.hpe.com/support/softwaredepot
- To view and update your entitlements, and to link your contracts, Care Packs, and warranties with your profile, go to the Hewlett Packard Enterprise Support Center More Information on Access to Support Materials page:

www.hpe.com/support/AccessToSupportMaterials

(!) IMPORTANT:

Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HP Passport set up with relevant entitlements.

Websites

Website	Link
Networking websites	
Hewlett Packard Enterprise Information Library for Networking	www.hpe.com/networking/resourcefinder
Hewlett Packard Enterprise Networking website	www.hpe.com/info/networking
Hewlett Packard Enterprise My Networking website	www.hpe.com/networking/support
Hewlett Packard Enterprise My Networking Portal	www.hpe.com/networking/mynetworking
Hewlett Packard Enterprise Networking Warranty	www.hpe.com/networking/warranty
General websites	
Hewlett Packard Enterprise Information Library	www.hpe.com/info/enterprise/docs
Hewlett Packard Enterprise Support Center	www.hpe.com/support/hpesc
Hewlett Packard Enterprise Support Services Central	ssc.hpe.com/portal/site/ssc/
Contact Hewlett Packard Enterprise Worldwide	www.hpe.com/assistance
Subscription Service/Support Alerts	www.hpe.com/support/e-updates
Software Depot	www.hpe.com/support/softwaredepot
Customer Self Repair (not applicable to all devices)	www.hpe.com/support/selfrepair
Insight Remote Support (not applicable to all devices)	www.hpe.com/info/insightremotesupport/docs

Customer self repair

Hewlett Packard Enterprise customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website:

www.hpe.com/support/selfrepair

Remote support

Remote support is available with supported devices as part of your warranty, Care Pack Service, or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

For more information and device support details, go to the following website:

www.hpe.com/info/insightremotesupport/docs

Documentation feedback

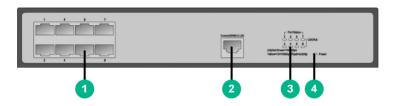
Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (docsfeedback@hpe.com). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.

Appendix A Chassis views and technical specifications

Chassis views

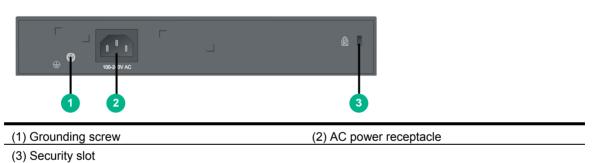
HPE 1620 8G

Figure 15 Front panel



(1) 10/100/1000BASE-T auto-sensing Ethernet port	(2) Console port
(3) Port LEDs	(4) Power LED

Figure 16 Rear panel



HPE 1620 24G

Figure 17 Front panel

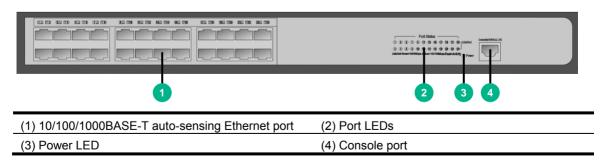
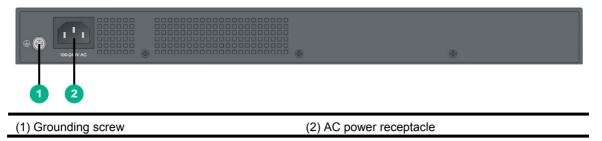
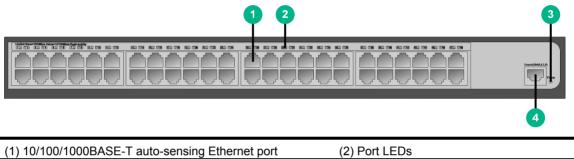


Figure 18 Rear panel



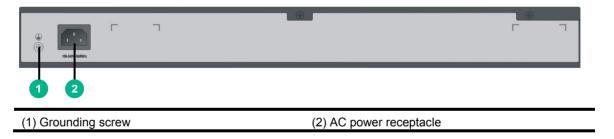
HPE 1620 48G

Figure 19 Front panel



(1) 10/100/1000BASE-T auto-sensing Ethernet port	(2) Port LEDs
(3) Power LED	(4) Console port

Figure 20 Rear panel



Physical specifications

Chassis dimensions and weights

Chassis	Dimensions (H × W × D)	Weight
HPE 1620 8G	44 × 266 × 162 mm (1.73 × 10.47 × 6.38 in)	≤ 1 kg (2.20 lb)
HPE 1620 24G	44 × 440 × 173 mm (1.73 × 17.32 × 6.81 in)	≤ 2.2 kg (4.85 lb)
HPE 1620 48G	44 × 440 × 238 mm (1.73 × 17.32 × 9.37 in)	≤ 3.3 kg (7.28 lb)

Ports and interface card slots

Chassis	Console ports	10/100/1000BASE-T auto-sensing Ethernet ports
HPE 1620 8G	1	8
HPE 1620 24G	1	24
HPE 1620 48G	1	48

Environmental specifications

Chassis	Operating temperature	Relative humidity
All chassis	0°C to 40°C (32°F to 104°F)	5% to 95%, noncondensing

Power specifications

AC input voltage specifications

Chassis	Rated voltage range
All chassis	100 VAC to 240 VAC @ 50 Hz or 60 Hz

Power consumption specifications for switches

Chassis	Minimum power consumption	Maximum power consumption
HPE 1620 8G	4 W	7 W
HPE 1620 24G	7.4 W	15 W
HPE 1620 48G	13.1 W	28.2 W

Cooling system

Chassis	Fixed fans
HPE 1620 8G	N/A
HPE 1620 24G	N/A
HPE 1620 48G	1

Appendix B LEDs

Power LED

Table 4 Power LED description

Status	Description
Steady green	The switch is powered on and the power module is operating correctly.
Flashing green	The switch is powered on and is performing the power-on self test (POST).
Off	The switch is not powered on or the power module is faulty.

Copper port LEDs

Table 5 Link/Act LED description

Status	Description
Steady yellow	A 10/100-Mbps link is present.
Flashing yellow	The port is sending or receiving data at 10/100 Mbps.
Steady green	A 1000-Mbps link is present.
Flashing green	The port is sending or receiving data at 1000 Mbps.
Off	No link is present.

Appendix C Troubleshooting

Table 6 describes the troubleshooting methods for common issues that you might encounter while using and managing the switch.

If a problem persists, contact Hewlett Packard Enterprise Support.

Table 6 Troubleshooting methods

Symptom	Troubleshooting method
Power LED off	 Verify that the correct power source is used and the power cords are correctly connected. Verify that the power source side provides power supply correctly.
LAN interface LED off	 Verify that the network cable is correctly connected to the network port of the switch. Insert the two ends of a network cable into two network ports of the switch. If the port LEDs are off, replace the network cable.
Unable to log in to the Web interface of the HPE 1620 switch	 Ping 127.0.0.1 to verify that TCP/IP has been installed. Ping the management IP address of the switch to verify that the management PC is connected to the switch. If not, perform the following check: For local configuration, verify that the IP addresses of the management PC and the switch are in the same subnet. For remote configuration, verify that the route from the management PC to the switch is reachable. Identify the LED status to verify that the cables are connected correctly. Verify that the switch's port that connects to the management PC is enabled and belongs to the management VLAN. Verify that the Web browser is not configured with proxy or dial-up connection. Disable and then enable the local network after you complete local network settings.